

Instructions

Welcome to your Dragon Ball Geometry worksheet! Use your knowledge of geometry to answer the following questions. Show your work where necessary. Let's unleash your inner Super Saiyan mathematician!

Part 1: Angles in the Universe

1. If Goku trains in a dojo that has a triangular shape and one angle measures 60° , what could be the measures of the other two angles? Show your calculations.

2. Vegeta wants to create a new training area in the shape of a rectangle. If the length of the rectangle is 10 meters and the width is 5 meters, what is the measure of each of the angles in the rectangle?

Part 2: Area and Perimeter

3. Bulma designs a new capsule with a circular base for a special energy drink. If the radius of the circle is 7 cm, calculate the area of the base. (Use $\pi \approx 3.14$)

4. Krillin is trying to surround his training area with a fence. If he has a square yard with each side measuring 8 meters, calculate the perimeter of the yard.

Part 3: Volume of Dragon Balls

5. The Dragon Balls are often described as spheres. If a Dragon Ball has a radius of 4 cm, calculate the volume of the Dragon Ball. (Use the formula $V = \frac{4}{3}\pi r^3$)

Part 4: Real-Life Applications

6. Imagine you are building a time machine inspired by the Capsule Corp style. The time machine has a height of 15 meters, a width of 3 meters, and a depth of 2 meters. What is the volume of your time machine?

7. If you were to decorate your time machine with squares of 1 meter by 1 meter, how many squares would it take to cover the surface area of your time machine? Remember to find the surface area first!

Bonus Challenge!

8. If you could create a new transformation for your character that doubles their height and width, calculate the new volume if your character's original dimensions are a height of 1.7 meters and a width of 0.5 meters.

Remember, math can be just as exciting as battling powerful foes in Dragon Ball! Good luck!